

U.S. Patent Application Serial No. 10/574,650
Amendment filed May 8, 2008
Reply to OA dated February 12, 2008

AMENDMENTS TO THE CLAIMS:

Please amend claims 1-16, as follows. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently amended): A ~~heat-resistant cast steel~~ hydrogen producing reaction tube excellent in aged ductility and creep rupture strength ~~for hydrogen producing reaction tubes which is characterized in that, said tube being formed of the~~ a cast steel ~~comprises~~ comprising, in mass %, ~~0.1 to 0.13~~ 0.13 to 0.5% of C, up to 2.5% of Si, up to 2.5% of Mn, 15 to 26% of Cr, 8 to 23% of Ni, 0.1 to 1.2% of Nb, 0.01 to 1.0% of Ti, 0.001 to 0.15% of Ce, up to 0.06% of N and the balance substantially Fe, the cast steel being 20 to 45 in the parameter value P represented by the following expression:

$$P = 89.3 - 78.4C + 0.1Si - 5.7Mn - 1.7Cr \\ + 0.01Ni + 2Nb + 5.3Ti - 36.5N - 50.8Ce.$$

Claim 2 (Currently amended): The ~~heat-resistant cast steel for~~ hydrogen producing reaction ~~tubes~~ tube according to claim 1, ~~which~~ wherein said cast steel further contains one or at least two elements selected from ~~among the group consisting of~~ 0.001 to 0.05% of B, 0.01 to 0.5% of Zr and 0.001 to 0.15% of La.

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Claim 3 (Currently amended): The ~~heat-resistant cast steel~~ for hydrogen producing reaction tubes tube according to claim 1, ~~which~~ wherein said cast steel further contains 0.01 to 0.3% of Al.

Claim 4 (Currently amended): The ~~heat-resistant cast steel~~ for hydrogen producing reaction tubes tube according to claim 2, ~~which~~ wherein said cast steel further contains 0.01 to 0.3% of Al.

Claim 5 (Currently amended): The ~~heat-resistant cast steel~~ for hydrogen producing reaction tubes tube according to claim 1, ~~which~~ wherein said cast steel contains ~~0.1~~ 0.13 to 0.3% of C.

Claim 6 (Currently amended): The ~~heat-resistant cast steel~~ for hydrogen producing reaction tubes tube according to claim 2, ~~which~~ wherein said cast steel contains ~~0.1~~ 0.13 to 0.3% of C.

Claim 7 (Currently amended): The ~~heat-resistant cast steel~~ for hydrogen producing reaction tubes tube according to claim 3, ~~which~~ wherein said cast steel contains ~~0.1~~ 0.13 to 0.3% of C.

Claim 8 (Currently amended): The ~~heat-resistant cast steel~~ for hydrogen producing reaction tubes tube according to claim 4, ~~which~~ wherein said cast steel contains ~~0.1~~ 0.13 to 0.3% of C.

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Claim 9 (Currently amended): The ~~heat-resistant cast steel~~ for hydrogen producing reaction ~~tubes~~ tube according to claim 1, ~~which~~ wherein said cast steel contains 15 to 20% of Cr and 8 to 18% of Ni.

Claim 10 (Currently amended): The ~~heat-resistant cast steel~~ for hydrogen producing reaction ~~tubes~~ tube according to claim 2, ~~which~~ wherein said cast steel contains 15 to 20% of Cr and 8 to 18% of Ni.

Claim 11 (Currently amended): The ~~heat-resistant cast steel~~ for hydrogen producing reaction ~~tubes~~ tube according to claim 3, ~~which~~ wherein said cast steel contains 15 to 20% of Cr and 8 to 18% of Ni.

Claim 12 (Currently amended): The ~~heat-resistant cast steel~~ for hydrogen producing reaction ~~tubes~~ tube according to claim 4, ~~which~~ wherein said cast steel contains 15 to 20% of Cr and 8 to 18% of Ni.

Claim 13 (Currently amended): The ~~heat-resistant cast steel~~ for hydrogen producing reaction ~~tubes~~ tube according to claim 5, ~~which~~ wherein said cast steel contains 15 to 20% of Cr and 8 to 18% of Ni.

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Claim 14 (Currently amended): The ~~heat-resistant cast steel~~ for hydrogen producing reaction tubes tube according to claim 6, ~~which~~ wherein said cast steel contains 15 to 20% of Cr and 8 to 18% of Ni.

Claim 15 (Currently amended): The heat-resistant cast steel for hydrogen producing reaction tubes according to claim 7, ~~which~~ wherein said cast steel contains 15 to 20% of Cr and 8 to 18% of Ni.

Claim 16 (Currently amended): The ~~heat-resistant cast steel~~ for hydrogen producing reaction tubes tube according to claim 8, ~~which~~ wherein said cast steel contains 15 to 20% of Cr and 8 to 18% of Ni.